

TWO NEW SPECIES OF *OTHOLOBIUM* (FABACEAE)

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ABSTRACT

Two new species of *Otholobium* Stirton are described. One of these, *O. rubicundum* C.H.Stirton, is recorded from the transition belt of Succulent Mountain Scrub and False Macchia on the Klein Swartberg Mountains; and the second, *O. pictum* C.H.Stirton, from the Baviaanskloof Mountains.

UITTREKSEL

TWEE NUWE *OTHOLOBIUM* (FABACEAE) SOORTE

Twee nuwe *Otholobium* Stirton-soorte word beskryf. Een van die soorte, *O. rubicundum* C.H.Stirton, word gevind in die oorgang strook van Sukkulente Bergstruikveld en Skyn-Fynbos op die Klein Swartberge en die tweede, *O. pictum* C.H.Stirton op die Baviaanskloofberge.

Key words: *Otholobium*, sp. nov., Fabaceae, southern Cape, eastern Cape.

Otholobium rubicundum C.H.Stirton, sp. nov.

Frutex parvus, effusus. *Foliola* trifoliolata. *Foliola* 15-25 mm longa, 4-6 mm lata, conduplicata, anguste ovovata, glabrescentia, valde recurvato-mucronata, basi cuneata; lateralibus breviora. *Inflorescentia* 3-6 flora, axillaris. *Flores* 9-10 mm longi, rosei. *Dentes calycis* aequales. *Vexillum* late ovatum, vix auriculatum, unguiculatum. *Alae* carina longiores.

Type: CAPE—3321 (Ladismith): Hoeko road, south base of Klein Swartberg (-AD), 10/1957, *Barker 1606* (NBG, holotype).

Small spreading shrublet. *Stems* slender, ridged, waxy, sparingly covered with glands and small appressed white hairs. *Flowering shoots* axillary, appressed pubescent with numerous elliptic raised pustules. *Leaves* trifoliolate. *Stipules* 2.5-3.5 mm long, 1.5-2.0 mm wide, triangular; papery, sparingly pubescent but covered with orange-coloured, sunken, rounded glands. *Petioles* < 1 mm long, hairy. *Leaflets* 15-25 mm long, 4-6 mm wide, conduplicate, glabrescent, glandular, narrowly obovate, base cuneate, apex strongly

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recurved mucronate; laterals shorter than terminal leaflet. *Inflorescence* axillary, condensed, comprising 1–2 sets of triplet flowers; each set subtended by a single 3 mm long, 1.5 mm wide, narrowly obovate, acute, hairy and glandular bract. *Flowers* 9–10 mm long, pink; pedicel 2 mm long. *Peduncle* 1–2 mm long. *Calyx* 7 mm long; teeth equal, margins densely ciliate, 4 mm long, upper four teeth 1.7 mm wide, keel tooth 3 mm wide, vexillar teeth slightly connate; lobes prominently glandular, glabrous inside and outside except for a few hairs along the ribs; tube 3 mm deep, ribbed. *Standard* 12 mm long, 8 mm wide, broadly ovate, scarcely auriculate, appendages absent; claw 4 mm long. *Wing petals* 10–11 mm long, 3 mm wide, auricle 1 mm high; sculpturing upper basal and left central comprised of 35–40 parallel lamellae. *Keel blades* 7 mm long, 3 mm wide, blade bulging; claw 3.5 mm long. *Androecium* 7 mm long; vexillar stamen fused to sheath for two-thirds its length. *Pistil* 5.5 mm long; ovary 1.5 mm long, glandular with few hairs, gynophore absent; height of curvature 1.5 mm long; style glabrous 0.5–0.6 mm thick at point of flexure; stigma minutely capitate, finely penicillate. *Fruit* and seed unknown.

Otholobium rubicundum is very rare, having been collected for the first time, as recently as 1957, by Miss W. F. Barker. This species has not been found since, despite a thorough search by the author in 1980.

SPECIMEN EXAMINED

Same as for type.

DISTRIBUTION AND BIOLOGY

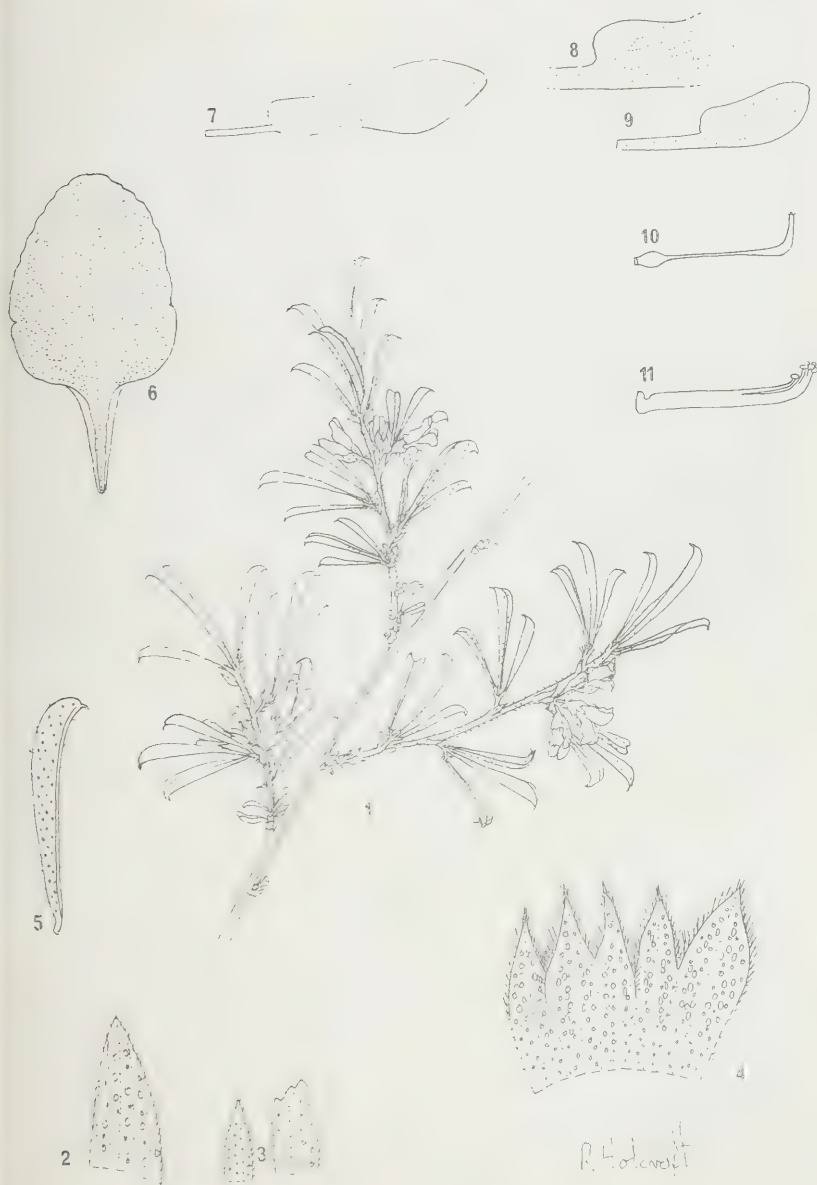
Otholobium rubicundum was found by Miss Barker at an altitude of about 650 m, apparently in the transition belt between False Macchia and Succulent Mountain Scrub vegetation types. Apart from the knowledge that flowering takes place during late October and early November little else is known about the biology of this rare and distinctive shrublet.

DIAGNOSTIC FEATURES

Small spreading shrublet; leaflets conduplicate, glandular; inflorescence 3–6-flowered, condensed; flowers pink, each triplet subtended by a narrowly obovate acute bract; standard broadly ovate.

FIG. 1.

Otholobium rubicundum (Barker 1606): 1. Flowering shoots; 2. Stipule; 3. Flower bracts; 4. Calyx opened out; 5. Leaf; 6. Standard; 7. Wing petal; 8. Base of keel; 9. Keel; 10. Pistil; 11. Androecium. (1, $\times 1$; 2–11, $\times 4$.)



Otholobium pictum C.H.Stirton, sp. nov.

Frutex erectus usque 2 m altus. *Rami* luteo-fusci. *Folia* trifoliolata. *Foliorum* 15–25 mm longa 2,5–3,0 mm lata plana, anguste obovata atque aliquantum falcata, prominente nigropunctata, recurvata, mucronata, basi cuneata, lateralibus minoribus. *Inflorescentia* 60–90-flora, dense spicata, late ovata vel oblonga. *Flores* 9–10 mm longa, albi. *Calycis dentes* inaequales lobus carinae ceteris lobis 2 mm longior. *Vexillum* late ellipticum, vix auriculatum, unguiculatum. *Alae* carina longiores.

Type: CAPE—3324 (Steytlerville): Baviaanskloof mountains, between Smitskraal and Wilgehof (-CB), 17/9/1973, *Oliver 4588* (STE, holotype; PRE, isotype).

Erect shrubs up to 2 m tall. *Stems* slender, glabrous, weakly ribbed, yellowish-brown. *Flowering shoots* clustered at the ends of the previous years shoots, densely appressed white pubescent between the angles, with elliptic pustules scattered along the upper edges. *Leaves* trifoliolate. *Stipules* 2,5–3,0 mm long, 0,5–0,8 mm wide, fused to the base of the petiole, shortly triangular, scarcely pubescent, densely encrusted with orange glands especially at the base. *Petioles* 1,5–2,0 mm long, gland-encrusted. *Leaflets* 15–25 mm long, 2,5–3,0 mm wide, flat, glabrescent, prominently nigro-punctate in dried specimens, narrowly obovate, somewhat falcate, base cuneate, apex recurved mucronate; laterals shorter and narrower than terminal leaflet. *Inflorescence* densely spicate, broadly-ovate becoming oblong, comprising from 20–30 sets of triplet flowers; each subtended by a single broadly ovate, pubescent glandular bract. *Flowers* 9–10 mm long, white; subsessile. *Peduncle* absent. *Calyx* 8 mm long; upper four teeth more or less equal, 6 mm long, 1 mm wide, keel tooth 8 mm long, 1 mm wide; vexillar teeth partially connate; lobes covered in small glands, densely black tomentose outside; tube 3,0–3,5 mm deep. *Standard* 9,0–9,5 mm long, 6,5 mm wide, broadly elliptic, emarginate, slightly auriculate, appendages absent; claw 2 mm long. *Wing petals* 9 mm long, 2,0–2,5 mm wide, longer than the keel, auriculate, claw 3,0–3,3 mm long; sculpturing upper basal, upper central and upper left distal comprised of 20–26 irregularly parallel lamellae. *Keel blades* 7 mm long, 2,5 mm wide, apex rounded; claw 3,5 mm long, purple blotch present on inner face of tip. *Androecium* 7 mm long; vexillar stamen 6,0–6,5 mm long, loosely fused to sheath for half its length. *Pistil* 6,5–7,0 mm long; ovary 2,5 mm long, pubescent; gynophore 0,5 mm long; style glabrous, 0,4 mm thick at point of flexure; stigma papillose, forward-sloping. *Fruits* and seed unknown.

Otholobium pictum was first collected in 1930. Since then it has been collected only twice. But considering the inaccessibility of the terrain in which

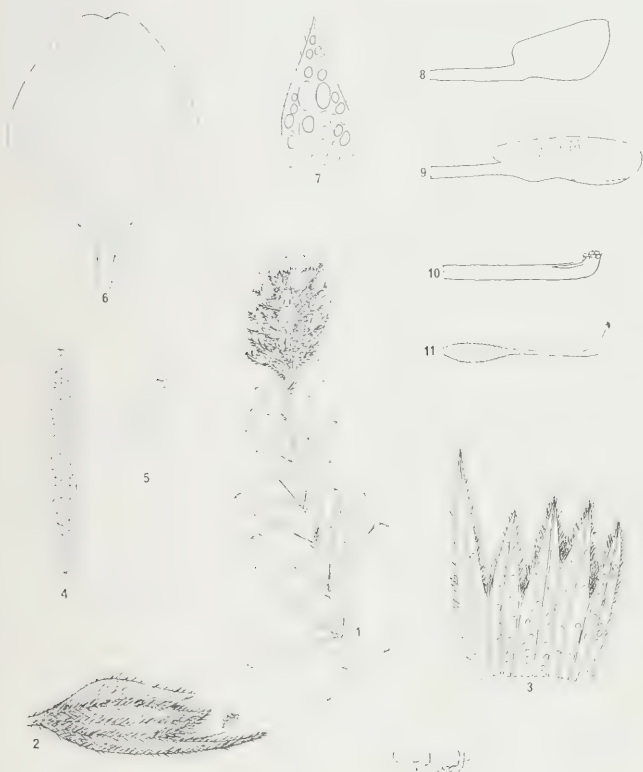


FIG. 2.

Otholobium pictum (Oliver 4588): 1. Flowering shoot; 2. Calyx with petals removed; 3. Calyx flattened out; 4. Leaf, surface view; 5. Tip of leaf; 6. Standard; 7. Stipule; 8. Keel; 9. Wing petal; 10. Androecium; 11. Pistil. (1, $\times \frac{3}{8}$; 4, $\times$ ca. 1; 3, $\times$ 3; 6, 8–11 $\times$ 4; 7, $\times$ 8)

this distinctive species occurs it is not surprising that the only collections made so far have been along the only two passable roads across the Bavianskloof and Great Winterhoek Mountains. It is probably fairly common on the escarpment and with further collecting by mountaineers it should have its range broadened substantially. The discovery of this species stresses once again the poor state of collecting along the inland mountains east of Uitenhage and north of Stormsriver.

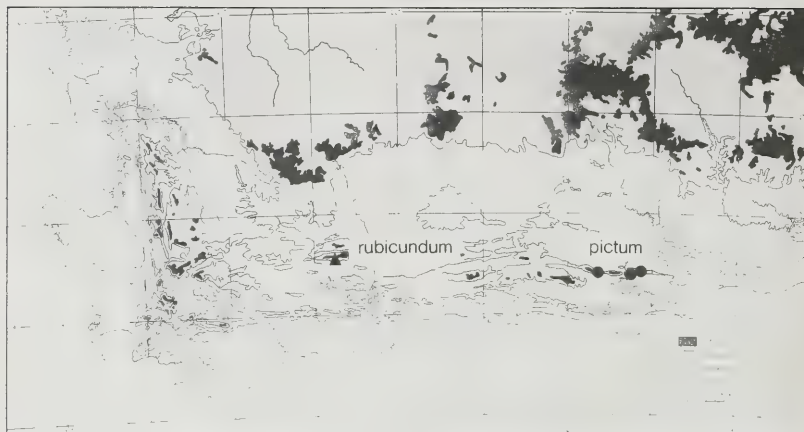


FIG. 3.

Known distribution of *Otholobium rubicundum* (▲) and *O. pictum* (●).

SPECIMENS EXAMINED

CAPE—3324 (Steytlerville): Baviaanskloof Mountains, between Smitskraal and Wilgehof (-CB), 17/9/1973, *Oliver 4588* (PRE, STE); Wintershoek Mountains (-DB), 15/9/1930, *Fries, Norlindh & Weimarck 1065* (PRE, STE); Mountain road north of Patensie, 12/7/1954, *Taylor 1285* (PRE, SAAS).

DISTRIBUTION AND BIOLOGY

Otholobium pictum, a distinctive endemic of the Baviaanskloof Mountains, remains little known and seldom collected. It is quite surprising that such a distinctive shrub should have been without a name for so long.

This species flowers during August and September. Nothing more is known about its biology.

DIAGNOSTIC FEATURES

Erect 2 m tall shrub; leaflets flat, nigro-punctate; inflorescence 60–90-flowered, densely spicate; flowers white, each triplet subtended by a broadly ovate bract; standard broadly elliptic.

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